

Mean Distance	3.607384
Mean daily motion direct	517."8667

Mr. W. remarked that their general resemblance to those of Dr. Goldschmidt, seemed conclusive as to the short period of this heavenly body, which though cometary in its appearance in the telescope, resembled the asteroids in the shape of its orbit.

In reply to a question from Dr. Patterson—whether there was reason to believe, that the Comet had ever been seen before? Mr. Walker stated, that he had not yet the necessary elements for a decision.

---

*Stated Meeting, April 19.*

Present, twenty-nine members.

Dr. BACHE, Vice-President, in the Chair.

Letters were announced and read:—

1. From the Secretary of the Commonwealth of Massachusetts, dated Boston, Nov. 25th, 1844, offering to present to the Society certain works, the results of scientific surveys made under the direction of that Commonwealth:—

2. From the Royal Geographical Society, dated London, Dec. 14, 1843, acknowledging the receipt of the Society's Proceedings:—

3. From the American Academy of Arts and Sciences at Boston, dated April 10th, 1844, enclosing the following resolutions on the occasion of the death of the President of this Society:—

*Resolved*, That the American Academy of Arts and Sciences has received with pain the intelligence of the death of the learned President of the American Philosophical Society of Philadelphia, Peter S. Du Ponceau, Esq. LL.D., and deeply sympathizes with that Society on the loss of that eminent man, whose talents and patriotic services have shed lustre upon our country, and conferred honour upon the distinguished body over which he was selected to preside, as a wor-

thy successor to the illustrious individuals who have, for a long series of years, been placed at its head.

*Resolved*, That the profound researches of Mr. Du Ponceau, in the sciences of jurisprudence and general philology, and especially on the aboriginal languages of America, of whose remarkable structure and peculiar characteristics he was the first to communicate to the learned in Europe and America just and philosophical views, and by their application to general philology, to extend the boundaries of that science, are entitled to the gratitude of the jurists and scholars of our country, and are duly appreciated and recognised by this Academy, with which he has, for many years, been associated as one of its honorary members.

4. From the Corresponding Secretary of the National Institute of Washington, dated Washington, April 6, 1844, in relation to the same subject:—

5. From the Librarian to the Library of Congress, dated Washington, April 11, 1844, acknowledging the receipt of Transactions of this Society:—

6. From Charles V. Walker, Esq., dated London, March 1st, 1844, in relation to Proceedings of the Electrical Society forwarded to this Society, &c. &c.:—and

From Dr. Dunlison, as one of the executors of the late Mr. Du Ponceau, dated Philadelphia, April 10, 1844, enclosing a copy of that part of the will of the late President of the Society which relates to this Society; and stating that the executors would carry into effect the object of the bequest at the earliest possible period.

The following is a copy of the bequest:—

“ I give and bequeath to the American Philosophical Society, held at Philadelphia for Promoting Useful Knowledge, all my books treating of philological subjects, that is to say, of languages in general, including hieroglyphics, alphabets, specimens of languages and works treating of the various systems of writing, excepting such Grammars and Dictionaries, English, French and Italian, which my granddaughter shall think proper to take for her own use. Also, all my pamphlets in any languages, bound or unbound, separately or together, whether relating to politics or literature, or other subjects, excepting such as my said granddaughter shall think proper to reserve for her own use. Also, my works of Locke, Condillac, Dumarsais, the two Humboldt, Dugald Stewart, and Thomas Reid, in their original

languages. Also, the Journal Asiatique, with its continuation, in hopes that the subscription will be continued. Also, the works of Jomard, Prichard, Klaproth and Remusat. Also, Micali's History of the ancient Italian Nations, in Italian, three volumes 8vo., with the plates belonging to it. Also, the Geography of Malte Brun, as those books shall be found in my library. \* \* \* I except from the books given to the Philosophical Society those of which they are already possessed, as will appear from their catalogues. These duplicates I give to my friend John Pickering, above named. As to bound pamphlets, if among them there should be any which they already have, they may still keep the bound volumes for the sake of those which they have not got, as it would not do to separate them. \* \* \* I give and bequeath, in addition to the other bequests to the American Philosophical Society, held at Philadelphia for Promoting Useful Knowledge, my Moniteur Universel, or Gazette Nationale, in twenty-one volumes folio, being the History of the French Revolution and of Europe, from 1789 to 1800, with an additional odd volume of a subsequent date, and the six volumes of Indexes to the same, entitled Tables Chronologiques and Tables Alphabétiques, in quarto."

The will bears date Nov. 11, 1839.

The following donations were announced:—

FOR THE LIBRARY.

- The Journal of the Royal Geographical Society of London. Vol. XIII. Part I. London, 1843. 8vo.—*From the Society.*
- Proceedings of the London Electrical Society. Session 1842-43. Part V. 8vo.—*From the Society.*
- Annales des Mines. Rédigés per les Ingenieurs des Mines. Quatrième Série. Tome IV. IVe livraison de 1843. Juillet—Août. 8vo.—*From the Engineers of Mines.*
- Journal of the Franklin Institute. Third Series. Vol. VII. April, 1844. No. 4. 8vo.—*From Dr. Patterson.*
- Report of the Select Committee appointed upon the following Resolution offered by Mr. Pratt on the 29th of January last, viz.—“Resolved, that a select committee of five members of this house be appointed to inquire into the expediency of establishing a Bureau of Statistics and Commerce in connexion with the Secretary of the Treasury.” 28th Congress, 1st Session, House of Representatives. No. 301.—*From the Hon. Mr. Pratt.*
- Observations of the Magnetic Dip in the United States. Fourth Se-
- VOL. IV.—I

ries. By Elias Loomis. Extracted from Vol. VIII. New Series, of the Transactions A. P. S.—*From the Author.*

The British Almanac of the Society for the Diffusion of Useful Knowledge. For the Year 1843. London. 12mo.—*From Petty Vaughan, Esq.*

A History of British Ferns. By Edward Newman, F.L.S., B.S., &c. Parts 1 and 2. Second Edition. London, 1844. 8vo.—*From the Author.*

The Zoologist: an Illustrated Magazine of Natural History. Nos. XIII. XIV. XV. Jan. to March, 1844. 8vo.—*From Edward Newman, Esq., Editor.*

An Essay on the Laws of Trade, in Reference to the Works of Internal Improvement in the United States. By Charles Ellet, Jr. Richmond, 1839. 8vo.—*From the Author.*

#### ADDITIONS TO THE LIBRARY BY PURCHASE.

Annales de Chimie et de Physique. Troisième Série. Tome IX. Novembre, Décembre, 1843. 8vo.

Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences; par MM. les Secrétaires Perpétuels. Tome XVIII. Nos. 1 to 4, inclusive. 4to.

Astronomische Nachrichten. Nos. 495, 496. Altona, Feb. 17 and 18, 1844. 4to.

An obituary notice of Professor John Sanderson was read by Professor Hart, pursuant to appointment.

Mr. Sanderson was born on the banks of the Conedogwinit, near the village of Carlisle, in Cumberland County, about the year 1786. His grandfather, Alexander Sanderson, emigrated from Carlisle, Cumberland County, England. He and his companions were the first settlers in that part of Pennsylvania, and they named the county and the town after their birth-place. Professor Sanderson's father, in 1798, sold his share of the paternal estate, and purchased a plantation on the banks of the Juniata, opposite Mifflintown, where Professor Sanderson received the rudiments of his education. At an early age he evinced such a disposition for study, and so great a dislike for farming, that his father determined to prepare him for a profession. At the age of 20, in 1806, he entered the office of Wm. More Smith, Esq., of Philadelphia, to study the law; but at the expiration of two years he abandoned the study, and soon after accepted

a situation at Clermont Seminary, where he subsequently became a partner of M. Carré, whose daughter he had married; and for many years the establishment was conducted in their joint names. During this period he wrote for the periodicals, especially the *Port Folio* and the *Aurora*. In 1820 he edited the *Biography of the Signers of the Declaration of Independence*, in which he wrote an historical sketch of this country to the period of the Revolution, with the lives of Hancock, Franklin, Wythe, and others. He wrote, also, various pamphlets on literary subjects, and whenever opportunity offered, vindicated the study of the Greek and Latin languages when endeavours were made to exclude them from colleges. About the year 1833 he retired from the occupation in which, at the expense of health, he had accumulated a moderate independence, and settled, with his family, in Pottsville, and soon afterwards travelled abroad and spent some time in Paris: during this visit he wrote his "American in Paris," and commenced the "American in London," the first portion of which, and the only part that was published, appeared in the *Knickerbocker*.

On the reorganization of the High School of Philadelphia in 1840, he was made Professor of Ancient Languages, which situation he held till his death. A portion of his duties at the High School led him to direct his attention particularly to the study of his native tongue, and he had in course of preparation a work on the Etymology and Structure of the English Language.

"That," Professor Hart observes, "which chiefly distinguished him as a writer, was his power of observation and delineation. He had, in consequence, a remarkable talent for that species of writing which consists in giving vivid sketches of passing characters and events. Our popular literature contains few more readable books than his 'American in Paris.' His mind was a perennial fountain of wit, sparkling, buoyant, and playful—of that laughter-loving kind which never failed to produce hilarity, as it was never known to provoke resentment. He was a man eminently devoid of guile or malice. Simple in manners and address, and almost child-like in his feelings, he won from those who knew him, and particularly from his pupils, something higher and holier even than respect. He was *beloved*. He had a native kindness of disposition which always finds its way to the heart."

Professor Locke read a communication on Terrestrial Magnetism, the result of several years' observation in various parts



of the United States, which was referred to a Committee, consisting of Professor Frazer, Mr. M'Euen and Professor Bache.

He gave a brief history of the circumstances which induced him to undertake these researches, in which he made a grateful acknowledgment for the kind and able instruction, especially in the practical manipulations, received from Professor Bache of this Society, while in London and Paris. He read a part of the correspondence between himself and Col. Sabine on the subject of the point of maximum intensity at or near to Lake Superior, and suggested, as the probable result of his researches and of those of Lieut. Lefroy, briefly alluded to by Col. Sabine, that the region of maximum intensity is either at Kewenon peninsula, south side of Lake Superior, or along a line extending thence to Rainy Lake—the last opinion having been expressed by Col. Sabine in his correspondence. To determine this point more precisely, Prof. Locke suggested that observations should be multiplied in various parts of the region of the lake. The observations were prefaced by a popular explanation of what is meant by the four elements of terrestrial magnetism, declination (“variation”) dip or inclination, horizontal intensity of magnetic force, and total intensity of the same force. These explanations were followed by the observations of six successive years, commencing in 1838, and extending more or less over the region included between the middle of Kentucky on the south, and the north side of Lake Superior on the north; and between Cambridge, Mass., on the east, to the middle of Iowa on the west. His observations had been accompanied throughout by remarks on the geology at each station, and he expressed the opinion that those observations justified the conclusion, that the general character of the rocks, especially as regards the distinction between the aqueous and the igneous formations, could be ascertained by the elements, as indicated by lines of observations extended along any given region. He exhibited a chart illustrative of this subject, on which the two quantities of dip and intensity were represented by curves passing through ordinates standing on horizontal distances, generally along lines of latitude. These curves, along regions of aqueous rocks, such as those along the Mississippi, were remarkably uniform, while those over igneous rocks were extremely irregular and undulating, sometimes ascending and descending with a needle-like sharpness. He remarked, that if these distinctive characters obtain so generally as to constitute a *law*, the

magnetical instruments will form a kind of "*mineral or divining rod*" to the geologist.

There was exhibited, also, a chart of the United States, showing, chiefly, the isodynamic lines consistent with the observations. These lines form ovals around Lake Superior as an axis, the longer or pointed ends pointing towards New York, and in the opposite direction. The outer oval descending along the Hudson river, passing through the city of New York, along the coast, to near Baltimore, and, turning westward, traverses Maryland, Virginia, and Kentucky, and crosses the Mississippi into Missouri about thirty miles below St. Louis.

The force along this line is 994, that at Cincinnati, in Ohio, being 1000; and an oval is delineated at every increase of 10, until, at the axis at Lake Superior, it rises to from 1054 to 1060. But, Professor Locke stated, more observations are needed to fix more precisely those lines at remote points, and he expressed a desire, that the observations of Major Graham, Prof. Bache, and Prof. Loomis, together with his own, might be united in a suitable chart, such as might be produced by a convention of observers. Two other charts, explained in the communication, were also exhibited; the one a copy of a part of Col. Sabine's north polar chart, with additions, and with a delineation of the relative positions of the astronomical poles, the pole of dip and convergence discovered by Ross, and the pole of intensity at Lake Superior; and the other a particular delineation of Copper Harbour and of Porter's Island, where, in Prof. L.'s line of observations, he found the greatest intensity of force.

Dr. Dunglison read the following supplementary remarks made by the late President to his last will and testament, in relation to this Society, as well as to others.

"Having thus disposed of my worldly property, I take the liberty to recommend to my brethren of the bar the Law Academy of Philadelphia, that they may take it under their special protection, so as to make it as useful as possible to the progress of our noble science. A law professorship has long been wanted in this city: several of the states have the advantage of us in this respect. I recommend this important subject to the consideration of the friends of the legal science, and who are desirous of making it redound more and more to the honour of Pennsylvania.

The Historical Society of Pennsylvania is in danger of perishing

for want of support. While almost every other state has an historical society, shall it be said that Pennsylvania wants one? Under the auspices of its illustrious founder, William Rawle, it has produced interesting and valuable memoirs; the honour of the state requires that the work should be continued. I recommend to them to increase the number of their members, and, perhaps, to raise the annual subscription to five dollars. I would also recommend to them to apply for aid to the Legislature: no one would be better able than a committee from their body to continue the publication of our ancient records so honourably begun, and which appears to be suspended. Science and literature are the glory of a state; canals and rail roads are perishable. The noble aqueducts, temples, roads, of the Greeks and Romans, have perished, but their literary fame will last forever. If England were sunken into the ocean, her fame would be perpetuated by the works of her admirable historians, philosophers, and poets. Let those, whose minds are impressed with these feelings, exert themselves and act.

I hope the annual celebration of the landing of the great William Penn will not be discontinued, and that the Society will revive under better auspices than have for some time attended it. Might it not be remodeled and united to the Historical Society?

The American Philosophical Society have only to pursue their present honourable course.

The above objects being very near my heart, I have ventured to give vent to my feelings upon them. Perhaps it is out of place, but my heart is full, and I could not help it."

The following gentlemen were elected members of the Society:—

SAMUEL S. HALDEMAN, of Lancaster County, Pa.

GEORGE W. NORRIS, M.D., of Philadelphia.

JOSEPH CARSON, M.D., of Philadelphia.